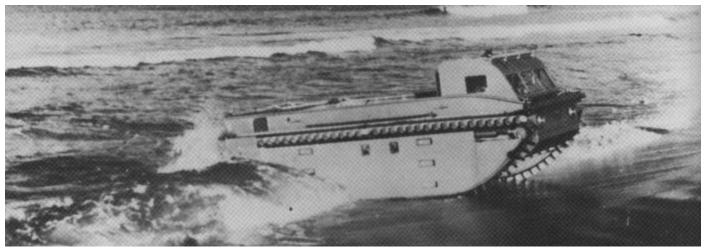
First in a series of articles recalling the vehicles that were and are uniquely Marine.

Battle Honors of the Marine Amphibian I. The Beginning

by Col Victor J. Croizat, USMC(Ret)



The first amphibian tractor procured by the Marines undergoing tests at Culebra Island in 1941 during Fleet Exercise Seven (FLEX-7).

Operation Plan 712H, Advanced Base Operations in Micronesia, approved by John A. Lejeune, Major General Commandant, on 23 July 1921 is an exceptional document. Prepared by Maj Earl "Pete" Ellis, it contains the strategic blueprint for the Central Pacific campaign of World War II. Beyond identifying objectives such as the Marshalls and Marianas, now part of Marine Corps legend, the plan envisages many of the innovations needed to make the amphibious assault operation possible. This, at a time when there were only 20,000 Marines and landings were made



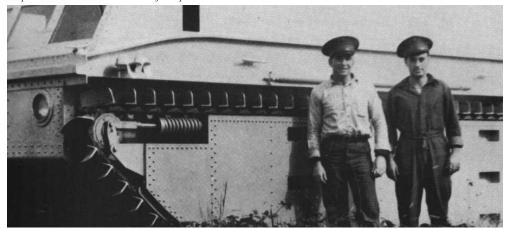
The LVT(1), first production amphibian tractor, was a modified Roebling design powered by a 150 hp Hercules engine and capable of carrying up to 18 men or 4,500 pounds of cargo. It began its combat service in a logistic role at Guadalcanal on 7 August 1942 and saw extensive use in the Southwest Pacific, ending its service as an assault vehicle at Tarawa on 20 November 1943. 1,225 LVT(1)s were built during WWII.

with ships' boats and tows. The establishment of offensive Expeditionary Forces that year was another event pointing the Marine Corps toward the amphibious mission. Notable too was the creation of the Marine Corps Schools where the visions of Ellis and other like-minded Marines would find expression in the 1934 *Tentative Manual for Landing Operations*, destined to guide the conduct of amphibious operations in World War II.

Efforts to parallel these developments with the acquisition of proper landing craft were limited by inadequate funds. Despite the establishment of the Marine Corps Equipment Board in 1933, little could be done with the scant \$40,000 in the R&D budget. Yet, when World War II ignited Europe in September 1939, the Navy had 35 of the 30-foot personnel landing boats and 11 lighters for tanks and artillery. Two years later the expanding conflict had helped the inventory grow to 1,285 boats, 303 lighters, and "300 amphibian tractors under construction." These unique vehicles, born of civilian rather than military needs, would come to play such a vital role in the Pacific War that Gen H. M. Smith would declare ". . . without (them) our amphibious offensive . . . would have been impossible."

In 1933, when rescue efforts following a devastating hurricane in Florida were hampered by the lack of capable transport, Donald Roebling, a wealthy engineer living in Clearwater, undertook to build an amphibious vehicle. The result, an aluminum box-like craft fitted with cleated tracks for propulsion, was featured in the 4 October 1937 issue of LIFE magazine. This came to the attention of the Com-

See Amphibians On Parade, p. 92.



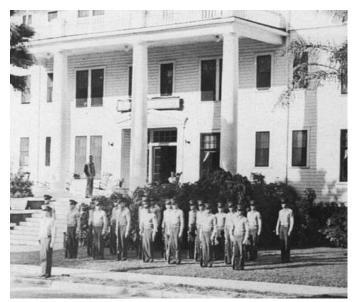
Sergeants Clarence H. Raper (right) and Walter L. Gibson pictured with the original amphibian tractor procured from Donald Roebling in 1940; the vehicle was aluminum and was powered by a Lincoln-Zephyr engine.



Donald Roebling pictured after receiving the Medal for Merit in Washington on 18 December 1946.



An LVT(1) emerges from a bay near Dunedin during a driver training session. 2dLt Harry Taylor wears the "tank" driver's helmet.



A Marine Amtrac Detachment poses in front of the Dunedin Hotel, Florida in June 1941. The Hotel served as headquarters, mess, and barracks for the initial 37-strong group of Marines to serve in the Detachment.

mandant, MGen Thomas Holcomb, who directed the Equipment Board to investigate.

Maj John Kaluf, Secretary of the Board, went to Clearwater in September 1938 to find Roebling uninterested in involvement with the military. Kaluf returned in January and convinced the reluctant Roebling to demonstrate his "alligator." Impressed, Kaluf recommended procurement of a test vehicle, but no funds could be found. Unwilling to drop the matter, Board President BGen E. P. Moses, visited Roebling in September and gained his agreement to build a test model with military specifications for \$20,000. Moses then talked the Navy out of the money. Roebling had the tractor finished by October 1940, \$4,000 below estimate. Refunding the money reportedly took longer than building the machine!

A week after arriving in Quantico, the amphibian tractor was demonstrated successfully to the Commandant and other dignitaries. A letter of intent for 100 tractors promptly followed. The vehicle was then sent to the 1st Marine Brigade in the Caribbean for field testing. This went well until the day Capt Victor H. Krulak took crusty Adm Ernest J. King, Atlantic Fleet commander, for a ride. The vehicle threw a track, and the admiral, ever impatient, waded ashore in starched whites, a stream of profanity in his wake. In Quantico, meanwhile, Maj W. W. Davies was preparing to move his detachment of 3 officers and 37 men to Dunedin, FL, where, in July, they would receive the first production LVT(1), a 21-foot sheet steel vehicle, near 10-feet wide and 8-feet high with 4,500 pound cargo capacity, quite different from its smaller and less powerful aluminum prototype.

The Marines, knowing virtually nothing of its performance, promptly went into the field to acquire operational and maintenance data. The process trained the officers and men who formed the first amtrac units and contributed to improving the LVT(1) and designing the LVT(2). An initial group of 45 Marines received orders to depart on 8 December for North Carolina to join the 1st Marine Division; another 69 Marines were to leave a week later for the West Coast and the 2nd Marine Division. Thus it was that the morning after the attack on Pearl Harbor, the people of Dunedin, still shocked by the event, gathered at the railroad station to bid goodbye to the first to go, the amtrac Marines . . .

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